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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/504,819	08/17/2004	Alain Pasty	0501-1101	2397

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EXAMINER
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DEB, ANJAN K

ART UNIT	PAPER NUMBER
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2858

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/504,819

Applicant(s)

PASTY, ALAIN

Examiner

Anjan K. Deb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 03/30/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because it does not conform to US practice of preferred layout for the specification: Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino

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acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because of the following informalities: In the specification page 1, immediately after the Title insert the following:

#### CROSS REFERENCE TO RELATED APPLICATION

The present application is the national stage under 35 U.S.C. 371 of PCT/FR03/00516, filed February 18, 2002.

Appropriate correction is required.

#### *Claim Objections*

2. Claims 5-12 are objected to because of the following informalities:

Claims 5-12 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5-12 not been further treated on the merits.

Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1,2,5-7,9 are rejected under 35 U.S.C. 102(b) as being anticipated by Magill (US 6,774,643 B2).

Re claim 1, Magill discloses (Fig. 1) acquisition module 78,40 (Fig.2) for the measurement of physical parameters 24, comprising at least one analogue-to-digital converter (col. 8 lines 47-50) and at least one input connector 36 capable of receiving a sensor (Fig. 5), characterized that it also comprises a supply source 44 and a reference impedance  $R_L$  arranged in series between said supply source and a terminal (col. 3 lines 26-31) of the input connector 36 and in that said analogue-to-digital converter comprises a reference input supplied with a voltage taken at the terminals of said reference impedance  $R_L$  and a conversion input supplied with a voltage taken via the input connector at the sensor 28 terminals (Fig. 1), and in that it also comprises means for delivering an image (impedance barcodes) of the physical parameter measured by the sensor (col. 8 lines 47-66).

Re claim 2, Magill discloses acquisition module comprises a memory 78 for storing parameters and variables (col. 10 lines 45-50).

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Re claims 5,6 Magill discloses programmable (col. 10 lines 46-50) voltage supply source 44 in acquisition module 40. Acquisition module 78,40 broadly interpreted as a part of signal processing unit having A/D converter.

Re claim 7, Magill discloses acquisition module comprises means 48 for processing digital data originating from analogue-to-digital converter in order to determine a value of the physical parameter measured (col. 13, lines 8-15).

Re claim 9, Magill discloses analogue-to-digital converter having differential input 64 (Fig. 1).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3,4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Magill (US 6774643 B2) in view of Yarmchuk (US 5,469,051).

Re claim 3, Magill discloses acquisition module comprising signal conditioning unit 40 that is connected to computer 48.

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Magill did not expressly disclose a card which can be plugged into a processing unit such as a microcomputer.

Yarmchuk discloses data acquisition module comprising plug-in card which can be plugged into a processing unit such as a computer (PC) (col. 12 lines 10-16).

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify Magill by adding plug-in card disclosed by Yarmchuk so that the data acquisition module can be easily inserted and removed from the computer.

Re claim 4, Magill discloses programmable (col. 10 lines 46-50) voltage supply source 44 in acquisition module 40. Acquisition module broadly interpreted as a part of signal processing unit having A/D converter.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Magill (US 6,774,643 B2) in view of Uchida (US 3,895,376).

Re claim 8, Magill did not expressly disclose means for protection against over voltage arranged between the analogue-to-digital converter on the one hand and the reference resistor and the connector on the other.

Uchida discloses means for protection against over voltage arranged between analogue-to-digital converter and reference resistor and connector (terminal)(col. 12 lines 35-38).

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify Magill by adding means for protection against over voltage arranged between

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analogue-to-digital converter and reference resistor and connector as disclosed by Uchida for protection of electronic circuitry against over-voltages produced in the circuit.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Magill (US 6774643 B2) in view of Harrison (US 3,859,654).

Re claim 10, Magill did not expressly disclose that the analogue-to-digital converter consists of a Delta-sigma converter.

Harrison discloses analog to digital converter for electrical signals consists of a Delta-sigma converter.

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify Magill by adding delta-sigma type analogue-to-digital converter as disclosed by Harrison that can be made more economically using inexpensive circuit components.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Magill (US 6,774,643 B2).

Re claim 11, Magill discloses acquisition module comprising analogue-to-digital converter having first differential amplifier arranged between the reference input and the reference impedance.

Magill lacks second differential amplifier arranged between the conversion input and the sensor.

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify Magill by adding second differential amplifier arranged between the conversion input



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and the sensor for signal amplification required for delta-sigma type analogue-to-digital converter.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Magill (US 6,774,643 B2) in view of Lima et al. (US 5,949,247).


Re claim 12, Magill discloses all of the claimed limitations as set forth above except plurality of acquisition channels.

Lima et al. (US 5,949,247) disclose plurality of acquisition channels for measuring a plurality of test parameters from a plurality of transducers for automatically testing and evaluating a device (electric generator sets).

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify Magill by adding data acquisition module comprising plurality of acquisition channels disclosed by Lima et al. for measuring a plurality of test parameters from a plurality of transducers for automatically testing and evaluating a device.

*Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Anjan K. Deb whose telephone number is 571-272-2228. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lefkowitz Edwards can be reached at 571-272-2180.



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